



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,296	04/16/2004	Yeon-ho Jin	Q79989	7766
23373 7590 07/08/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER GREENE, JOSEPH L	
			ART UNIT 2151	PAPER NUMBER
			MAIL DATE 07/08/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/825,296

Applicant(s)

JIN ET AL.

Examiner

JOSEPH L. GREENE

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 18 are currently pending in this application.
2. Claims 1-3, 5, 10, 13-14, and 16 are currently amended as filed on 10 Mar 2008.
3. Claim 18 is new as filed on 10 Mar 2008.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

6. With respect to claim 1, it is directed to method for constructing non-functional data structure without physical transformation for achieving a practical application or useful and tangible result. Furthermore, all of the steps listed in the claim can be performed mentally and are not directly tied to statutory subject matter. In addition, the home state set, which is claimed, is described in section 0048 of the specification as follows: **"In the home-state information architecture of FIG. 3A, a home-state set 310 becomes a basis of most widely classifying home-states. That is, the home-state set 310 can be defined as a set composed of information sources**

capable of expressing home-states and the combinations of the information sources. As shown in FIG. 4, the information sources represent home devices 410 connected to a network, a home agent 411 which is software for generating home-states, home users 412 and external home services 413 connected to the home, and home applications."

As can be seen, the intent of the home state set is to be a data compilation that comprises the compilation of other data from various information sources and thus, the claim is directed towards non-statutory subject matter.

7. As for claim 10, it is directed to software per se as it doesn't specifically claim any statutory subject matter. More specifically, the "computer-readable memory" is utilized by the analyzing module, but is not claimed to be part of the module itself. Furthermore, a computer-readable memory is not disclosed within the specification which therefore provides evidence that a computer-readable memory was not intended to be part of the disclosed device. Thus, claim 10 is directed to non-statutory subject matter.

8. Furthermore, claims 2-9 and 11-13 are dependent upon claims 1 and 10 respectively and are thus also directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 10, 16, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Gonzales et al. (Pre-Grant Publication No US 2003/0074088 A1) hereinafter Gonzales.

11. With respect to claim 1, Gonzales disclosed a method of constructing home-state information in a home network (abstract), comprising: a) constructing a home-state set using a plurality of home-state information sources which expresses the home-state information sources and all the combinations of the home-state information sources ([0004], lines 1-6); b) constructing home-state objects which are specific instances of the home-state set ([0004], lines 1-6; [0010], lines 1-11); and c) constructing home-state properties expressing properties of the home-state objects which specify characteristic parts of home-state information sources ([0004], lines 1-6; [0010], lines 1-11; it is inherent that objects contain properties that allow another to interact with them).

12. With respect to claim 10, Gonzales taught an information collecting module operable to collect information from various information sources in a network (0004, lines 1-6, where maintaining the devices at specific settings requires that the system

know the settings of the devices. Furthermore, a device collecting module would also be used to initially detect and setup the network); a home-state generating module operable to process information to generate home-state information; a home-state analyzing module operable to analyze generated home-state information depending on home-state properties ([0004], lines 1-6; [0010], lines 1-11; this sections discusses the operations of the device. It is inherent that in order to provide the service, it will need to generate the information that will provide the actual service); and a home-state storing module operable to store the information generated by the home-state generating module and information analyzed by the home-state analyzing module in a computer-readable memory ([0010], lines 27-33).

13. With respect to claim 16, Gonzales disclosed a system for utilizing home-state information, comprising: an information collecting module operable to collect information from various information sources in a network; a home-state generating module operable to process the collected information to generate home-state information; a home-state analyzing module operable to analyze the generated home-state information depending on home-state properties to produce analyzed information ([0004], lines 1-6; [0010], lines 1-11; where in order to provide the system's services, it needs to generate the information that will provide the actual services); a home-state storing module operable to store the information generated by the home-state generating module and information analyzed by the home-state analyzing module in a computer-readable memory ([0010], lines 27-33); one or more applications in a

Art Unit: 2151

computer-readable memory operable to control a predetermined home device using the generated home-state information or the analyzed information; and an Application Programming Interface (API) operable to transmit the information generated by the home-state generating module and the information analyzed by the home-state analyzing module to the applications, wherein the home-state storing module stores a set of information sources and the combinations of the information sources ([0010], lines 6-10).

14. As for claim 18, Gonzales taught all of the limitations described in claim 1, including the home-state information constructing method according to claim 1, wherein the home-state information sources include home devices, a home agent, home users, home services, and home applications (0004, lines 1-16).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 2-9, 11, 13, and 17 are rejected as being unpatentable over Gonzales in view of Maxson et al. (Pre-Grant Publication No. US 2002/0171762 A1) hereinafter Maxson.**

17. As for claim 2, Gonzales taught all of the limitations described in claim 1, including wherein the home-state set comprises common home-state information sources (0010, lines 1-11, where the information sources are common to the SPI), but Gonzales did not explicitly state the use of profiles for the devices. However, Maxson does teach the use of profiles for the devices ([0054], lines 7-9, where the displayed devices in the menu means that the devices have profiles in the system). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales in order to utilize common profiles for information sources, as taught by Maxson, in order to have a properly functioning interface system that maintains representations of various devices.

18. As for claim 3, it is rejected on the same basis as claim 2. In addition, Maxson taught wherein operation a) comprises, a1) constructing unique profiles of the home-state information sources ([0054], lines 7-9, 17-20, and 28-32).

19. As for claim 4, it is rejected on the same basis as claim 3. In addition, Gonzales taught constructing external home service profiles ([0037], lines 13-15; [0038], lines 5-7), but Gonzales does not explicitly state wherein operation a1) comprises, constructing home device profiles. However, Maxson does teach such a system ([0054], lines 7-9, 17-20, and 28-32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales in order to utilize profiles

of home devices, as taught by Maxson, in order to have a properly functioning interface system that maintains representations of the various home devices.

20. As for claim 5, it is rejected on the same basis as claim 2. In addition, Gonzales taught setting rules for information source objects which form profiles of the home-state information sources and a combination thereof, the rules being applied to a specific home-state object ([0004], lines 1-6).

21. As for claim 6, it is rejected on the same basis as claim 5. In addition, Gonzales taught wherein the rules are personally defined by a home user ([0010], lines 1-6).

22. As for claim 7, it is rejected on the same basis as claim 5. In addition, Gonzales taught wherein the rules are provided from an external home service provider ([0037], lines 13-15; [0038], lines 5-7).

23. As for claim 8, Gonzales taught all of the limitations described in claim 1, including the home-state set ([0004], lines 1-6), the home-state objects ([0004], lines 1-6; [0010], lines 1-11) and the home-state properties ([0004], lines 1-6; [0010], lines 1-11; It is inherent that objects contain properties that allow another to interact with them, but Gonzales did not explicitly state combining a user interface with the home-state information. However, Maxson did teach such a system (abstract, lines 12-15). It would have been obvious to a person of ordinary skill in the art at the time of the

invention to modify the teachings of Gonzales in order to utilize a user interface, as taught by Maxson, in order to accurately and efficiently manage a user interactive system.

24. As for claim 9, it is rejected for the same reason as claim 8. In addition, Gonzales taught combining an Application Programming Interface (API) with the home-state information to enable the constructed home-state information to be accessed from an external application ([0010], lines 6-10; the SPI mentioned in the prior art represents the API of the system).

25. As for claim 11, it is rejected on the same basis as claim 10. In addition, a Maxson taught wherein the home agent device is implemented by a separate device or mounted on a gateway, to collect information from information sources in a network and construct home-state information using the collected information ([0008], lines 8-16).

26. As for claim 13, it is rejected on the same basis as claim 11. In addition, Gonzales taught wherein the information collecting module comprises: a device information collecting module operable to collect information of a plurality of home devices (0004, lines 1-6, where maintaining the devices at specific settings requires that the system know the settings of the devices. Furthermore, a device collecting module would also be used to initially detect and setup the network); a user information

collecting module operable to collect information of home users ([0098], lines 9-18; information is collected in order to program the device); an external home service information collecting module operable to collect information of an operation between the home devices and an external home service or an operation between the home users and another external home service; a home application information collecting module operable to collect information of home applications or contents included in a home server ([0037], lines 13-15; [0038], lines 5-7); a home agent information collecting module operable to collect information of the home agent device itself (0004, lines 1-6).

27. As for claim 17, Gonzales taught all of the limitations described in claim 1. But Gonzales did not explicitly state wherein the one or more applications are constructed so that transmission or reception of home-state information there between is performed using Meta data for the information generated by the home-state generating module and the information analyzed by the home-state analyzing module. However, Maxson does teach wherein the one or more applications are constructed so that transmission or reception of home-state information there between is performed using Meta data for the information generated by the home-state generating module and the information analyzed by the home-state analyzing module (0054, lines 28-32, where the reception of info is taking place by the user and the different states are metadata).

Both of these systems are solving the issue of creating a home network of devices and therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales, in order to utilize

metadata, as taught by Maxson, in order to improve the speed of transfer and overall ease of use of the system by increasing the speed at which important information is received.

28. Claims 12 and 14-15 are rejected as being unpatentable over Gonzales in view Maxson as applied to claims 10, and 11.

29. As for claim 12, it is rejected on the same basis as claim 11. In addition, examiner takes official notice that an event generating module operable to announce an event outside of a home depending on results analyzed by the home-state analyzing module is well known and expected in the art of common burglar alarm computer system. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales in order to combine event communicating practices found in many alarm systems in order to provide more features to event based computer system.

30. With respect to claim 14, Gonzales taught all of the limitations described in claim 1, including collecting information from home-state information sources on a home network through an information collecting module; processing the collected information to generate home-state information; analyzing the generated home-state information to produce an event which specifies the generated home-state information; ([0004], lines 1-6; [0010], lines 1-11, where in order to provide the services, it will need to generate

Art Unit: 2151

the information that will provide the actual services); and storing the generated home-state information in a computer-readable memory ([0010], lines 27-33), but Gonzales does not explicitly state using a home agent. However Maxson does teach using a home agent ([0008], lines 8-16; the mentioned PDCU is a device designed to collect and process information from other connected devices). It would have been obvious to person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales to combine a device collection and processing unit, as taught by Maxson, into ones system. Doing so increases the efficiency and modification ability of the system.

The combination of Gonzales and Maxson, however, does not teach announcing the event outside the home network. However, the examiner takes official notice that announcing an event outside of a home by analyzing the home-state information is well known and expected in the art in a common burglar alarm computer system. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales in order to combine event communicating practices found in many alarm systems in order to provide more features to event based computer system.

31. As for claim 15, it is rejected on the same basis as claim 14. In addition, the examiner takes official notice that announcing an event outside of a home by analyzing the home-state information is well known and expected in the art in a common burglar alarm computer system. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gonzales in order to combine

event communicating practices found in many alarm systems in order to provide more features to event based computer system.

32. The Applicant has failed to seasonably challenge the Examiner's assertions of well known subject matter in the previous Office action(s) pursuant to the requirements set forth under MPEP § 2144.03. A "seasonable challenge" is an explicit demand for evidence set forth by Applicant in the next response, including a statement why the noticed fact is not considered to be common knowledge or well-known in the art. A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. Accordingly, the claim limitations the Examiner considered as "well known" in the first Office action, i.e. **an event generating module operable to announce an event outside of a home depending on results analyzed by the home-state analyzing module**, are now established as admitted prior art of record for the course of the prosecution. See *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943) and MPEP § 2144.03, paragraph (C).

Response to Arguments

33. Applicant's arguments, see page 12, paragraph 3 and page 13, paragraph 2, filed 10 Mar 2008, with respect to the rejection(s) of claim(s) 16 and 17 under 35 USC § 102, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made

Art Unit: 2151

in view of Gonzales only with respect to claim 10, which conflicted to statements made in claim 16.

Rejections under Claim Rejections - 35 USC § 101.

34. With respect to claim 14, the rejection has been withdrawn as storing the information in a computer-readable memory, which is part of the system, provides a tangible result.

35. As for claim 16, the rejection has been withdrawn as the "computer-readable memory" is part of the claim system.

Rejections under Claim Rejections - 35 USC § 102/103.

36. With respect to claim 1, the applicant argues that Gonzales neither taught nor suggests "constructing a home-state set using a plurality of home-state information sources which expresses the home-state information sources and all the combinations of the home-state information sources," however, looking at the giving rejection, one can see that a morning scene is a set comprising a furnace, bathroom lights, and etc. Furthermore, the lights and etc. make up the plurality of home state information sources. Applicant also argues that Gonzales disclosed nothing about creating a set of scenes comprising all the combinations of devices. However, looking at 0010, lines 6-

Art Unit: 2151

11, one can clearly see that the aforementioned scenes are being created within the system.

37. As for claim 3, the applicant argues that Maxson neither taught nor suggests constructing unique profiles of the home-state information sources. Rather, Maxson disclosed that the UI icons may be visually altered to indicate a system status. Maxson neither taught nor suggests constructing unique profiles of the home-state information sources, as Maxson disclosed nothing about unique device profiles. Rather, Maxson merely disclosed icons representing power state, channel, transport state, or action, with no teaching or suggestion that the icons represent ~ profiles of home-state information sources. However, in the rejection, Maxson clearly shows that the icons are being associated with devices in the device selection menu. In order to maintain the metadata that each device displays, there must be some sort of profile maintained for each device.

38. As for claims 11 and 14, applicant argues that they recite features similar to those discussed above regarding claim 10, and hence the combination of Gonzales and Maxson would not have rendered claim 14 unpatentable for at least analogous reasons. Furthermore, applicant argues claim 11 for similar reasoning as his/her argument for claim 14. However, the rejection to claim 10 has been modified and thus, on the same grounds, 11's and 14's rejections are maintained.

39. As for claims 12 and 15, the applicant argues that the field of burglar alarms is an unrelated art to the field of home agents and home-state utilization. Burglar alarm systems merely transmit a signal when a breach is detected in a security system. Conversely, home agents and home-state analysis requires the detection of various different home-state information sources having various different properties. Accordingly, a person having skill in the art would have no reason to modify Gonzales as the Examiner asserts in the Office Action.

However, a burglar alarm is a home state system that collects information in a centralized computer, from multiple devices, such as breach detectors and motion sensors. Furthermore, a burglar alarm has multiple states that control the programmed sets that correspond to the different devices throughout the home.

Conclusion

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH L. GREENE whose telephone number is (571)270-3730. The examiner can normally be reached on Monday - Thursday from 9:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2151

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLG

/J. Bret Dennison/
Examiner, Art Unit 2143